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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

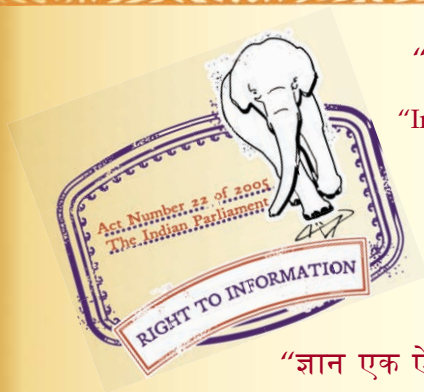
“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 4982 (1984): Closing pins for foundry moulding boxes
[MTD 14: Foundry]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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IS : 4982 - 1984

Indian Standard
SPECIFICATION FOR
CLOSING PINS FOR FOUNDRY
MOULDING BOXES
(*Second Revision*)

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INDIAN STANDARDS INSTITUTION
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Gr 2

October 1984

AMENDMENT NO. 1 DECEMBER 1989
TO
IS : 4982 - 1984 SPECIFICATION FOR
CLOSING PINS FOR FOUNDRY MOULDING BOXES
(Second Revision)

(Page 4, clause 6.1) — Insert the following after 6.1 and renumber the subsequent clauses:

7. SAMPLING

7.1 Scale of sampling and criteria for conformity for visual characteristics (workmanship and finish) and dimensions shall be as given in Table 2 of IS : 6821-1973‡.

7.2 For hardness, the scale of sampling and criteria for conformity shall be as given in Table 1 of IS : 6821-1973‡.

7.3 The necessary samples as required in 7.1 and 7.2 shall be selected equally at random from the cartons.'

‡Methods for sampling non-threaded fasteners.

(SMD 17)

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Indian Standard

SPECIFICATION FOR CLOSING PINS FOR FOUNDRY MOULDING BOXES

(Second Revision)

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IS : 4982 - 1984

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Indian Standard
SPECIFICATION FOR
CLOSING PINS FOR FOUNDRY
MOULDING BOXES
(*Second Revision*)

0. FOREWORD

0.1 This Indian Standard (Second Revision) was adopted by the Indian Standards Institution on 31 March 1984, after the draft finalized by the Foundry Sectional Committee had been approved by the Structural and Metals Division Council.

0.2 This standard was first issued in 1968 and was subsequently revised in 1975. On the basis of experience gained during these years, it was felt necessary to make this standard more practicable. In this revision the material requirement and the dimensions of the closing pins have been modified.

0.3 Closing pins (also known as loose pins) are used mainly for superimposing the moulding boxes.

0.4 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard covers the requirements for closing pins for foundry moulding boxes.

1.2 The requirements for closing pins other than those specified in this standard shall be as agreed to between the purchaser and the manufacturer.

*Rules for rounding off numerical values (revised).

IS : 4982 - 1984

2. SUPPLY OF MATERIAL

2.1 General requirements relating to the supply of closing pins for foundry moulding boxes shall confirm to IS : 1387-1967*.

3. MATERIAL

3.1 Closing pins shall be machined from steel confirming to class 1A of IS : 1875† and shall be case carburized, hardened and tempered to 40/45 HRC. And the case depth shall be maintained to 0.25 mm, *Min.*

3.1.1 Higher hardness of the closing pin may also be supplied, if, agreed to between the manufacturer and the purchaser.

4. SHAPE AND SIZE

4.1 The shape and sizes of closing pins shall be in accordance with Table 1 and Table 2.

5. DESIGNATION

5.1 Closing pin (*A*) for round holes shall be designated by the nominal diameter (d_1) and nominal length (l_1) of the pin. For example, a closing pin of nominal diameter 22 mm and nominal length 300 mm shall be designated as Closing Pin (*A*) 22 × 300 IS : 4982.

5.2 Closing pin (*B*) for elongated bushes shall be designated by the nominal width across flats (b_1) and nominal length (l_1) of the pin. For example, a closing pin of nominal width across flats 22 mm and nominal length 325 mm shall be designated as Closing Pin (*B*) 22 × 325 IS : 4982.

6. WORKMANSHIP AND FINISH

6.1 All closing pins shall be made cleanly and neatly and shall be free from burrs, scales and tool marks.

7. PACKING

7.1 The closing pins may be packed in cartons or boxes with a coat of suitable rust preventive, in quantities of 10, 20, 50 or 100.

8. MARKING

8.1 The cartons or boxes containing the closing pins shall be suitably marked to indicate size, quantity and the manufacturer's name or trade-mark.

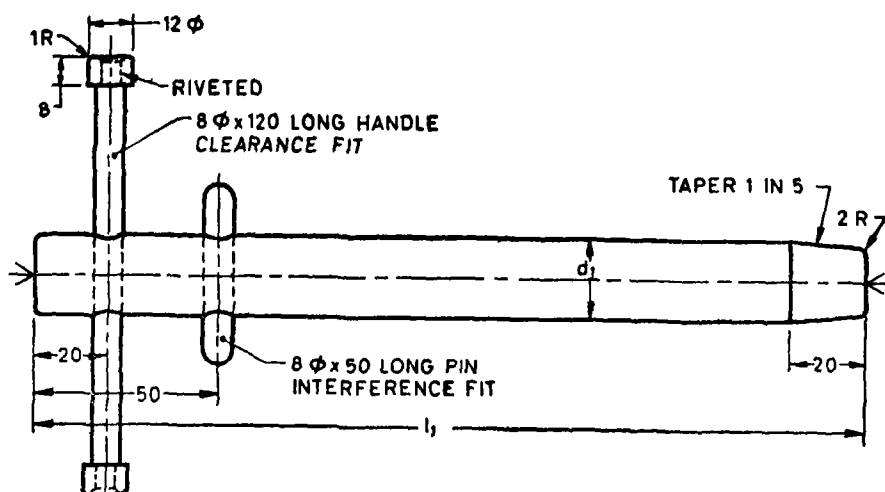
*General requirements for the supply of metallurgical materials (*first revision*).

†Specification for carbon steel billets, blooms, slabs and bars for forgings.

TABLE 1 DIMENSIONS OF CLOSING PINS (A) FOR ROUND HOLES OF MOULDING BOXES

(Clause 4.1)

All dimensions in millimetres



| CLOSING PINS (A) DIMENSIONS | | SIZES OF MOULDING BOXES mm × mm × mm |
|-------------------------------|--|--|
| d_1 (d_{10}^*) | l_1 | |
| 19 | 225, 300, 375, 450, 525, 600 | From 315 × 315 × 80 to 630 × 630 × 250 |
| 22 | 300, 375, 450, 525, 600, 675 | From 710 × 400 × 125 to 1 000 × 1 000 × 300 |
| 25 | 375, 450, 525, 600, 700, 800, 900 | From 1 120 × 630 × 150 to 1 400 × 1 400 × 400 |
| 30 | 450, 525, 600, 700, 800, 900, 1 000, 1 100 | From 1 600 × 900 × 175 to 2 000 × 2 000 × 500 |

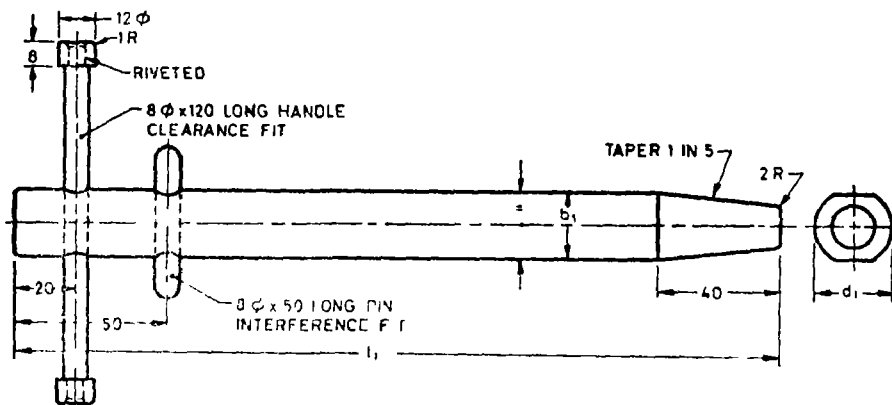
NOTE — The closing pins though normally recommended for round holes can also be used for elongated holes of the moulding boxes at the discretion of the purchaser.

*Deviations in accordance with IS : 919-1963 ' Recommendations for limits and fits for engineering (revised) '.

TABLE 2 DIMENSIONS OF CLOSING PINS (B) FOR ELONGATED HOLES OF MOULDING BOXES

(Clause 4.1)

All dimensions in millimetres



| CLOSING PINS (B) DIMENSIONS | | | SIZES OF MOULDING BOXES mm × mm × mm |
|-----------------------------|-------------------------|--|---|
| b_1 (d_{10}^*) | d_1 (d_{11}^*) | I_1 | |
| 19 | 22 | 250, 325, 400, 475, 550, 625 | From 315 × 315 × 80 to 630 × 630 × 250 |
| 22 | 25 | 325, 400, 475, 550, 625, 700 | From 710 × 400 × 125 to 1 000 × 1 000 × 300 |
| 25 | 28 | 400, 475, 550, 625, 700, 800, 900 | From 1 120 × 630 × 150 to 1 400 × 1 400 × 400 |
| 30 | 34 | 475, 550, 625, 700, 800, 900, 1 000, 1 100 | From 1 600 × 900 × 175 to 2 000 × 2 000 × 500 |

*Deviations in accordance with IS : 919 1963 'Recommendations for limits and fits for engineering (revised)'

8.1.1 The cartons or boxes, containing the closing pins, may also be marked with the ISI Certification Mark

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions, under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

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INTERNATIONAL SYSTEM OF UNITS (SI UNITS)

Base Units

| QUANTITY | UNIT | SYMBOL |
|---------------------------|----------|--------|
| Length | metre | m |
| Mass | kilogram | kg |
| Time | second | s |
| Electric current | ampere | A |
| Thermodynamic temperature | kelvin | K |
| Luminous intensity | candela | cd |
| Amount of substance | mole | mol |

Supplementary Units

| QUANTITY | UNIT | SYMBOL |
|-------------|-----------|--------|
| Plane angle | radian | rad |
| Solid angle | steradian | sr |

Derived Units

| QUANTITY | UNIT | SYMBOL | DEFINITION |
|----------------------|---------|--------|---------------------------------|
| Force | newton | N | 1 N = 1 kg.m/s ² |
| Energy | joule | J | 1 J = 1 N.m |
| Power | watt | W | 1 W = 1 J/s |
| Flux | weber | Wb | 1 Wb = 1 V.s |
| Flux density | tesla | T | 1 T = 1 Wb/m ² |
| Frequency | hertz | Hz | 1 Hz = 1 c/s (s ⁻¹) |
| Electric conductance | siemens | S | 1 S = 1 A/V |
| Electromotive force | volt | V | 1 V = 1 W/A |
| Pressure, stress | pascal | Pa | 1 Pa = 1 N/m ² |



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